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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,592	08/13/2001	William Leo Hoarty	S0465/259256	7503

7590 10/17/2005

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EXAMINER	
WILDER, PETER C	

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/928,592	HOARTY ET AL.	
	Examiner	Art Unit	
	Peter C. Wilder	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-83* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-83* is/are rejected.

7)☒ Claim(s) *35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 January 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: In Figure 4 the speakers are referenced as 420a and 420b. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. The disclosure is objected to because of the following informalities: On page 7 line 21 the word "convention" should be "conventional".

Appropriate correction is required.

2. The disclosure is objected to because of the following informalities: On page 14 in line14 element "420" is designated as representing the speaker when the number 420 has already been designated as representing the hard drive in line 9.

Appropriate correction is required.

1. Claim 35 is objected to because of the following informalities: The word "and" needs to be added after the word "element," in order to make the claim embodying according to the specifications. Appropriate correction is required.

Claim Rejections - 35 USC § 103

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 5-8, 11-13, 17, 19, 27, 23-27, 29, 30, 32-44, 46, 48-51, 53, 55, 58-71, 73-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1).

For all future references in this detailed action when referring to Hendricks (5734853) patent the examiner will use Hendricks (853) and Hendricks (5600573) patent will be referred to as Hendricks (573) and Hendricks (2002/0104083 A1) will be referred to as (083).

Referring to claim 1, Hendricks (573) teaches a method for delivering data over a television signal spectrum, comprising:

receiving information and transmitting the data to a wide network delivery system (Column 7 lines 9-12 along with Figure 1 teaches receiving the information, Column 8 lines 55 – 65 along with Figure 1 teaches transmitting the data);

transmitting the data to at least one receiver associated with an edge server (Column 9 lines 45 – 46 along with Figure 1 teaches element 208 as a headend that receives the signal and has element 215 a file server; Also Column 6 lines 27-37 teaches a network controller element 214);

transferring the data to the edge server (Column 6 lines 31-37 teaches receiving the data and then having it managed by the network controller so it is transferred to a server), storing the data in a storage element associated with the edge server (Column 9 lines 45-46 teaches storing the signal); and provisioning the data stored in the edge server to a signal combiner (Column 9 lines 39-45 teaches combining analog signals and the digital signals);

inserting a signal related to the data into the television signal spectrum (Column 6 lines 31-37 teaches combining signals which would create a television signal spectrum), and broadcasting the television spectrum containing the inserted signal (Column 31-37 teaches transmitting the combine signal);

and receiving the television signal spectrum containing the inserted signal at a receiver device (Column 6 lines 47-51 and Figure 1 teaches a set-top box receiving the signal), extracting the data from the received television signal spectrum (Column 6 lines

47-51 teaches the set top box decompressing the signal from the headend), but fails to teach storing the extracted data.

Hendricks (853) teaches storing the extracted data (Column 11 lines 43-49 teaches storing the signal).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) set-top box function/device of Hendricks (853) for the purpose of creating a menu template (Column 11 lines 47-48, Hendricks (853))

Referring to claim 1 Hendricks (573) and Hendricks (853) teach all the limitations of claim 1, but fail to teach the network controller element 214 in Figure 1 is a server.

The examiner takes Official Notice that it is well known that the network controller could be a server. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network controller as taught by Hendricks with a network controller which is server for the purpose of having a video file server provide greater storage capacity and quicker retrieval of stored programs than most other storage media (Column 5 lines 54-56, Hendricks (573)).

Referring to claim 5, corresponding to claim 1, Hendricks (853) teaches wherein the inserting of the signal related to the data into the television signal spectrum comprises multiplexing the signal with a conventional analog television signal (Column 8 lines 60-61 teaches combining analog and digital signals, Column 11 line 45 teaches

the set-top box demultiplexing the signal from the headend so the headend must have multiplexed the signal).

Referring to claim 6, corresponding to claim 1, Hendricks (853) wherein the inserting of the signal related to the data into the television signal spectrum comprises multiplexing the signal with a conventional digital television signal (Column 11 lines 43-49 teaches demultiplexing the signal, so the signal would have to have been multiplexed first at the headend. Hendricks teaches converting the signal to analog if necessary at the set top box means the television signal would have to be transmitted as a digital signal then the signal at the headend would have to be multiplexed with a digital signal).

Referring to claim 7, corresponding to claim 1, Hendricks (573) teaches wherein the receiving device communicates with a network server via a back channel (Column 13 lines 66-67 and Column 14 lines 1-3 teach the operations center receiving video on demand requests; Column 7 lines 38-45 teaches elements 217 and 218 in Figure 1 as backchannels between the headend and operations center and the two arrow in Figure 1 between the set top terminal and the headend means data can be transmitted back and forth), said network server being associated with a network center responsible for the transmitting of the data to the wide network delivery system (Column 8 lines 55- 65 along with figure 1 teaches the delivery system).

Referring to claim 8, corresponding to claim 7, Hendricks (573) teaches wherein the network center provides for an archiving function (Column 15 lines 52-58 teaches data is stored in the operations center such as billing).

Referring to claim 11, corresponding to claim 1, Hendricks (573) teaches wherein the provisioning of the data to the signal combiner is in response to a request from the network center to the edge server via a back channel (Column 14 lines 1-3 teaches receiving a request from the headend which includes a server; Column 14 lines 4-9 along with Column 11 lines 47-55 teaches the system controller telling a multiplexer to combined the requested data).

Referring to claim 12, corresponding to claim 1, Hendricks (573) teaches wherein the receiving the data further comprises: aggregating a plurality of data elements into the data; and scheduling the data elements for a release into a local market at a specified release time (Column 7 lines 26-29 and Column 10 lines 39-49).

Referring to claim 13, corresponding to claim 12, Hendricks (573) teaches wherein the provisioning of the data to the signal combiner is in response to the specified release time (Column 10 lines 39-49, Figure 2, and Column 13 lines 30-33).

Referring to claim 17, Hendricks (853) corresponding to claim 1, wherein the receiving device communicates with a wired device via a home network (Figure 6 and Column 20 lines 47-52).

Referring to claim 19 Hendricks (573) teaches a method for delivering a content element over a television signal spectrum, comprising:

See rejection of claim 1, for limitations not listed below and the examiner equates "content element" in claim 19 as the same as "data" in claim 1.

Hendricks (573) teaches provisioning the accumulated content element to a signal combiner (Column 9 lines 39-45 teaches combining analog signals and the digital signals so the signals have to be sent to a signal combiner).

Referring to claim 23, corresponding to claim 19, see rejection of claim 3.

Referring to claim 24 corresponding to claim 19, see rejection of claim 4.

Referring to claim 25, corresponding to claim 19, Hendricks (573) teaches wherein a portion of the accumulated content element becomes unavailable to a customer in response to a request transmitted by a network center to the edge server via a back channel (Column 4 lines 14-24 teaches the program center can augment a package program signal sent at the headend therefore the operations center can make

a program unavailable to a customer; Figure 1 element 218 teaches a two way link or back channel between the operations center and the headend).

Referring to claim 26, corresponding to claim 19, see rejection of claim 20.

Referring to claim 27, corresponding to claim 19 see rejection of claim 21.

Referring to claim 29, corresponding to claim 19, see rejection of claim 16.

Referring to claim 30, corresponding to claim 19, Hendricks (573) teaches wherein the wide network delivery system comprises a satellite (Figure 1, element 204 and Column 6 lines 17-24).

Referring to claim 32, corresponding to claim 19, Hendricks (853) teaches wherein the receiving device comprises a communication port for transferring home information via a home network (Figure 6b element 650 and Column 20 lines 46-52; Element 650 is an output port on the set top box element 220 which is connect to a television creating a home network connection to transmit data from the set top box to the television).

Referring to claim 33, corresponding to claim 19, see rejection of claim 17.

Referring to claim 34, corresponding to claim 19, see rejection of claim 18.

Referring to claim 35, a method for delivering a plurality of content elements over a plurality of television signal spectrums, comprising:

See rejections of claim 1 and 19 for the claim limitations not listed below.parts of The examiner notes that Hendricks teaches "signals" which is the same as "plurality of television signal spectrums" in claim 35.

Hendricks teaches transferring the plurality of content elements to a plurality of edge servers located in a local market (Column 9 lines 45 – 46 along with Figure 1 teaches element 208 as a headend that receives the data and has element 215 a file server; The examiner views a "edge server" as a server; Column 6 lines 24-26 teaches the headend is a remote site which the examiner reads as a local market).

Referring to claim 36, corresponding to claim 35, Hendricks teaches wherein a network center for the transmitting of the plurality of content elements to the wide network delivery system communicates via a back channel with a receiving device for the receiving of the plurality of television signal spectrums (Column 7 lines 37-45 and Figure 1 teaches a operations center can receive information on a terrestrial link from the headends which are in two way contact with the set-top terminals, so information from the set-top terminals can be received by the operations center Column 13 lines 66-67 and Column 14 lines 1-3).

Referring to claim 37, corresponding to claim 36, see rejection of claim 8.

Referring to claim 38, corresponding to claim 35, see rejection of claim 3 (Column 3 lines 63 – 65 of Heinzelman teaches video packets being sent to the encoder for error protection).

Referring to claim 39, corresponding to claim 38, see rejection of claim 4.

Referring to claim 40, corresponding to claim 36, see rejection of claim 9.

Referring to claim 41, corresponding to claim 36, Hendricks (853) teaches wherein the receiving device transfers home information via a home network (Figure 6b element 650 and Column 20 lines 46-52; Element 650 is an output port on the set top box element 220 which is connect to a television creating a home network connection to transmit data from the set top box to the television).

Referring to claim 42, corresponding to claim 35, Hendricks (573) teaches wherein the causing the insertion of its corresponding content element into its corresponding television signal spectrum at each edge server is in response to a request from the network center to the edge server via a back channel (Column 4 lines 14-24 teaches augmenting packaged program signals or making a program available

from the operations center by controlling features at the cable headend; The backchannel used is the two way link in Figure 1 element 218).

Referring to claim 43, Hendricks (573) teaches wherein each edge server is associated with a signal combiner (Column 6 lines 31-37 teaches the network controller or server element 214 in Figure 1 managing received signals in the headend which also combines signals prior to transmission), and the causing the insertion of its corresponding content element into its corresponding television signal spectrum comprises provisioning the content element to the signal combiner (Since the network controller manages the headend it would be obvious that it would control what data goes to the signal combiner), but fails to teach wherein the signal combiner multiplexes the signal related to the content element and a television signal.

Hendricks (853) teaches wherein the signal combiner multiplexes the signal related to the content element and a television signal (Column 11 lines 43-49 teaches demultplexing the received signal at the set top box, so the signal must have been multiplexed at the headend).

Referring to claim 44,corresponding to claim 35, see rejection of claim 30.

Referring to claim 46 Hendricks (573) teaches a system for delivering data over a television signal spectrum, comprising:

See rejections of claims 1,19, and 35 for claim limitations not listed below.

A "wide network delivery system" is taught by Hendricks (573) Column 6 lines 15-27 and Figure 1. The reference teaches transmitting signals between the operation center and the cable headend. Also Hendricks (573) teaches in Column 8 lines 55-65 teaches a "wide network delivery system."

Referring to claim 48, corresponding to claim 46, see rejection of claim 8.

Referring to claim 49, corresponding to claim 46, see rejection of claim 3.

Referring to claim 50, corresponding to claim 49, see rejection of claim 4.

Referring to claim 51, corresponding to claim 46, see rejection of claim 44.

Referring to claim 53, corresponding to claim 46, see rejection of claim 41.

Referring to claim 55, corresponding to claim 46, Hendricks (573) teaches wherein the extracted data is provided to a television (Column 6 lines 49-51).

Referring to claim 58, corresponding to claim 46, see rejection of claim 16.

Referring to claim 59, corresponding to claim 46, see rejection of claim 55.

Referring to claim 60, corresponding to claim 46, see rejection of claim 55 (a television is known to have audio speakers).

Referring to claim 61, corresponding to claim 46, see rejection of claim 17.

Referring to claim 62, corresponding to claim 53, see rejection of claim 18.

Referring to claim 63, Hendricks (573) teaches a system for delivering a plurality content elements over a plurality of television signal spectrums, comprising:

See rejections of claims 1, 19, 46 for claim limitations not listed below.

Hendricks (573) teaches each local system being associated with at least single content element (Column 8 lines 25-29 teaches the operations center sending out customized menus which would be designed of individual headends);

Referring to claim 64, corresponding to claim 63, see rejection of claim 47.

Referring to claim 65, corresponding to claim 63, see rejection of claim 8.

Referring to claim 66, corresponding to claim 63, see rejection of claim 3.

Referring to claim 67, corresponding to claim 66, see rejection of claim 4.

Referring to claim 68, corresponding to claim 63, see rejection of claim 9.

Referring to claim 69, corresponding to claim 63, see rejection of claim 42.

Referring to claim 70, corresponding to claim 63, see rejection of claim 30.

Referring to claim 71, Hendricks (853) teaches the system of claim 63, wherein each edge server is associated with to a signal combiner (Column 6 lines 62-67; Column 10 lines 1-5 teaches a signal processor element 209 in Figure 3 which is controlled by the network controller or element 214 which is a server), and the causing the insertion of its corresponding content element into its corresponding television signal spectrum comprises provisioning the content element to the signal combiner (Column 1-5 teaches the signal processor which is part of the server re-routes incoming signals so it has to be told by the network controller or server to send which data to the signal combiner), wherein the signal combiner multiplexes the signal related to the content element and a television signal (Column 11 lines 43-49 teaches demultiplexing the signal so the signal would have to be multiplexed together first and television program signals that are combined together make up a television signal) .

Referring to claim 73, corresponding to claim 63, see rejection of claim 17.

Referring to claim 74, corresponding to claim 63, see rejection of claim 18.

Referring to claim 75, Hendricks (573) teaches a method for delivering data over a television signal spectrum, comprising:

See claims 1, 19, 35, 46, and 63 for claims not listed below.

Hendricks (853) teaches receiving information regarding the extracted data via a back channel (Column 17 lines 24-36 teaches sending data from the set top terminals to the cable headend using telephone lines which is considered a back channel by the examiner).

Referring to claim 76, corresponding to claim 75, see rejection of claim 30.

Referring to claim 77, corresponding to claim 75, Hendricks (573) teaches wherein the receiving and transmitting the data to a wide network delivery system is provided by a network center (Column 7 lines 9-12 along with Figure 1 teaches receiving the information, Column 8 lines 55 – 65 along with Figure 1 teaches transmitting the data).

Referring to claim 78, corresponding to claim 77, see rejection of claim 8.

Referring to claim 79, corresponding to claim 75, see rejection of claim 3.

Referring to claim 80, corresponding to claim 79, see rejection of claim 4.

Referring to claim 81, corresponding to claim 75, see rejection of claim 45.

Referring to claim 82, corresponding to claim 75, see rejection of claim 17.

Referring to claim 83, corresponding to claim 75, see rejection of claim 18.

Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Kelly et al. (U.S. 6834039 B1).

Referring to claim 2, Hendricks (573) teaches wherein the wide network delivery system comprises a satellite (Column 6 lines 17-27 and Figure 1 element 206); but fails to teach a portion of the data is provided with more error protection than specified for a MPEG2 protocol.

Kelly teaches a portion of the data is provided with more error protection than specified for a MPEG2 protocol (Column 7 lines 53-65 teaches having two NOCs elements 210 always broadcasting a DVB stream at the same time).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the extra back broadcast channel

function/device of Kelly for the purpose deriving uplink from start times my be recovered by all remote users (Column 7 lines 63-64, Kelly).

Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Heinzelman (U.S. 6754277 B1).

Referring to claim 3, Hendricks (573) and Hendricks (853) teach all the limitations in claim 1, but fail to teach wherein the data is transmitted using a protocol having error correction codes at three different layers.

Heinzelman teaches wherein the data is transmitted using a protocol having error correction codes at three different layers (Column 2 lines 12-16).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box functions/devices of Hendricks (853) further using the three layers of error protection function/device of Heinzelman for the purpose of having more efficient channel coding (Column 2 lines 21-22, Heinzelman).

Claim 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1)

further in view of Heinzelman (U.S. 6754277 B1) further in view of Kelly et al. (U.S. 6834039 B1).

Referring to claim 4, Heinzelman along with Hendricks (573) and Hendricks (853) teach all the limitation of claim 3, but fail to teach wherein one of the three different layers includes a forward error correction code; another of the three different layers includes a cyclic redundancy check code; and the third layer includes an embedded forward error correction code.

Kelly teaches wherein one of the three different layers includes a forward error correction code (Column 8 lines 27-33); another of the three different layers includes a cyclic redundancy check code (Column 14 lines 34-39); and the third layer includes an embedded forward error correction code (Column 8 lines 27-33, the examiner notes that embedded forward error correction code is the same as forward error correction code since the correction codes are embedded into the data stream).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the further using the three layers of error protection function/device of Heinzelman further using the forward and cyclic error protection functions/devices of Kelly for the purpose of faster recovery of in route packet errors (Column 14 line 38-39 Kelly).

Claims 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Cannon (U.S. 6754715 B1).

Referring to claim 9, Hendricks (573) and Hendricks (853) teach all the limitations in claim 7, but fail to teach wherein the receiving device communicates a receipt of a bad block to the network server via the back channel, and the network server causes a transmission of a data block to replace the bad block received by the receiver device.

Cannon teaches wherein the receiving device communicates a receipt of a bad block to the network server via the back channel (Column 7 lines 42-47 teaches the request for retransmission of a data packet if a packet is missing which the examiner reads as the same as a bad block, Column 7 lines 26-31 and Figure 1A teach element 116 is used as a back channel to communicate between server 102 and client computer 104), and the network server causes a transmission of a data block to replace the bad block received by the receiver device (Column 7 lines 42-51 teaches the packet is retransmitted from server 102 to 104).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the transmission and set-top box functions/devices of Hendricks (853), further using the retransmit of a bad block function/device of Cannon for the purpose of retransmitting a lost data packet because if the time for the displaying a given data packet at the client computer has passed, there

is little use for the that data packet if and when it arrives (Column 2 lines 50-53, Cannon).

Claim 14 -16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of ReplayTV.

Referring to claim 14, Hendricks (573) and Hendricks (853) teach all the limitations of claim 1, but fail to teach wherein the extracted data stored in the receiver device is replaced with new data after a period of default time.

Replay TV's owners manual teaches wherein the extracted data stored in the receiver device is replaced with new data after a period of default time (Page 63 (midway down "Keep:" in bold letters) teaches being able to set how many episodes are kept before a show is recorded over, also Page 62 image in the upper corner shows the option set at 2 episodes).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the data replacement function/device of ReplayTV for the purpose of conserving a fixed amount of disk space.

Referring to claim 15, corresponding to claim 14, 2000© Replay TV's owners manual teaches wherein the period of default time is changed in response to a customer's request (Page 63 (midway down "Keep:" in bold letters) teaches being able to set how many episodes are kept before a show is recorded over, also Page 62 image in the upper corner shows the option set at 2 episodes, the user has the ability to change the number of shows).

Referring to claim 16, corresponding to claim 15, ReplayTV owners manual teaches wherein the extracted data is made transferable to a storage device in response to a customer's request (Page 73 teaches recording a show onto a VCR).

Claim 18 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Kikinis (U.S. 2002/0059597 A1).

Referring to claim 18, Hendricks (573) and Hendricks (853) teach all the limitations in claim 1, but fail to teach wherein the receiving device communicates with a wireless device via a home network.

Kikinis teaches wherein the receiving device communicates with a wireless device via a home network (Page 3 ¶ [0036] teaches the set top box communicating with a PDA wirelessly and the set-top box is located in the home).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the wireless communication function/device of Kikinis for the purpose of allowing a user to move about the room which contains video display 105 and be able to control the functions of the EPG from any point (Page 3 ¶ [0037] Kikinis).

Referring to claim 57, Hendricks (573) and Hendricks (853) teach all the limitations in claim 1, but fail to teach wherein the extracted data is provided to a mobile device.

Kikinis teaches wherein the extracted data is provided to a mobile device (¶ [0036] teaches the set top box communicating with a PDA which is a mobile device).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the mobile device function/device of Kikinis for the purpose of allowing a user to move about the room which contains video display 105 and be able to control the functions of the EPG from any point (¶ [0037] Kikinis).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Hajime et al. (U.S. 6920278 B1) and Browne (WO 92/22983).

Referring to claim 20, Hendricks (573) and Hendricks (853) teach all the limitations in claim 19, but fail to teach wherein each content element comprising the accumulated content element is associated with a timestamp, and a new content element replaces the content element associated with the oldest timestamp among the content elements comprising the accumulated content element.

Hajime teaches wherein each content element comprising the accumulated content element is associated with a timestamp (Figure 1 element 7 and Column 4 lines 10-20 teach that all data input into the receiving device has a time stamp added to it if it does not already have one), but fails to teach a new content element replaces the content element associated with the oldest timestamp among the content elements comprising the accumulated content element.

Browne teaches a new content element replaces the content element associated with the oldest timestamp among the content elements comprising the accumulated content element (Page 19 ¶ starting with "Programs may" teaches that the oldest programs stored in the storage device are erased first).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the transmission and set-top box

functions/devices of Hendricks (853) further using the timestamp adding function/device of Hajime further using the order of deletion function/device of Browne for the purpose of greatly reducing the need for constant user attention and providing multiple viewing options (Page 2 end of paragraph starting with "It is a further...").

Claim 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Hamilton et al. (U.S. 5579055 B1).

Referring to claim 21, Hendricks (573) and Hendricks (853) teach all the limitations in claim 19, but fail to teach wherein the edge server receives a new content element and replaces a portion of the accumulated content element with the new content element, using a mark indicated on the portion by a component comprising a network center.

Hamilton teaches wherein the edge server receives a new content element (Column 7 lines 65-67 and Column 8 lines 1-6 and Figure 1 teaches the EPG provider element 18 which is the operations center in the Hendricks reference sends the Information Services Processor (Cable Headend in Hendricks) data) and replaces a portion of the accumulated content element with the new content element (Column 8 lines 1-6), using a mark indicated on the portion by a component comprising a network center (Column 8 lines 7-12 teaches the Define Category Command in the data stream sent from the EPG has category identification data bytes 8-9).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the transmission and set-top box functions/devices of Hendricks (853) further using the data update and data marker function/device of Hamilton for the purpose of being able to process the received data in its internal database manager to perform data compression and the like (Column 2 lines 45-46, Hamilton)

Referring to claim 22, corresponding to claim 21 see rejection of claim 8.

Claims 10, 28, 31, 45, 47, 52, 56, 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Hendricks (U.S. 2002/0104083 A1).

Referring to claim 10, Hendricks (573) and Hendricks (853) teach all the limitations in claim 7, but fail to teach wherein the back channel comprises the Internet.

Hendricks (083) teaches wherein the back channel comprises the Internet. (¶ [0100] and Figure 1 element 202 the 120, 204, and 220 are all connected).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks using the set-top box function/device of Hendricks (853) further using the internet as a back channel function/device of Hendricks (083) for the

purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Referring to claim 28, Hendricks (573) teaches wherein a portion of the extracted accumulated content element becomes unavailable in response to a request transmitted by a network center to the receiving device via a back channel (Column 4 lines 14-24 teaches the program center can augment a package program signal sent at the set-top box therefore the operations center can make a program unavailable to a customer) but fails to teach a back channel Figure 1 element 218 shows a two way link between the operations center and the headend that the signal could be sent to on the way to remote device element 219).

Hendricks (083) teaches the use of a back channel to communticate with a headend (¶ [0100] and Figure 1 element 100 is a two way link between the headend and the operations center)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the internet function/device of Hendricks (083) for the purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Referring to claim 31, Hendricks (573) and Hendricks (853) teach all the limitations in claim 19, but fail to teach wherein the receiving device comprises a communication port for communicating via the Internet with a network center responsible for the transmitting of the content element to the satellite.

Hendricks (083) teaches wherein the receiving device comprises a communication port for communicating via the Internet with a network center responsible for the transmitting of the content element to the satellite (¶ [0100] and Figure 1 element 202 the 120, 204, and 220 are all connected).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the internet function/device of Hendricks (083) for the purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Referring to claim 45, corresponding to claim 36 see rejection of claim 10.

Referring to claim 47, Hendricks (573) and Hendricks (853) teaches all the limitations in claim 46, but fail to teach receiving device comprises a communication port for communicating with the network center.

Hendricks (083) teaches receiving device comprises a communication port for communicating with the network center (Page 6 ¶ [0100] and Figure 1 element 100

teaches the internet being connected to the set top terminal, so the network center has to have a communication or internet port).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the internet function/device of Hendricks (083) for the purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Referring to claim 52, Hendricks (573) and Hendricks (853) teach all the limitations of claim 46, but fail to teach wherein the network center communicates via the Internet with the receiving device and the edge server.

Hendricks (083) teaches wherein the network center communicates via the Internet with the receiving device and the edge server (Page 6 ¶ [0100] and Figure 1 and element 100 teaches the internet connecting the network center, receiving device (set top terminal) and edge server (Cable Headend) being connected together).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the internet function/device of Hendricks (083) for the purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Referring to claim 56, Hendricks (573) and Hendricks (853) teach all the limitations of claim 46, but fail to teach wherein the extracted data is provided to a personal computer.

Hendricks (083) teaches wherein the extracted data is provided to a personal computer. (Page 6 ¶ [0100] teaches a personal computer being connected to the internet element 100 in Figure 1).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573)using the set-top box function/device of Hendricks (853) further using the personal computer function/device of Hendricks (083) for the purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Referring to claim 72, Hendricks (573) and Hendricks (853) teach all the limitations of claim 63, but fail to teach wherein the extracted data is provided to a personal computer.

Hendricks (083) teaches the system of claim 63, wherein the network center communicates via the Internet with the receiving device and each edge server associated with the plurality of local systems (Page 6 ¶ [0100] teaches the internet element 100 in Figure 1 is connecting the operations center (network center), cable headend (edge server), and set top terminal (receiving device) together).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the internet connection function/device of Hendricks (083) for the purpose allowing a method for the network controller element 214 to receive information from the set top terminals 220 (¶ [0468], Hendricks (083)).

Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. (U.S. 5600573 B1.) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Hazra (U.S. 6510553 B1).

Referring to claim 54, Hendricks (573) and Hendricks (853) teach all the limitations of claim 46, but fail to teach wherein the extracted data is provided to an information kiosk.

Hazra teaches wherein the extracted data is provided to an information kiosk (Column 3 lines 53-64 teaches receiving, and processing a video stream by an information kiosk).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the television program transmission system function/device of Hendricks (573) using the set-top box function/device of Hendricks (853) further using the an information kiosk to receive the data function/device of Hazra

for the purpose of allowing an information kiosk to receive "live" content. (Column 1 lines 48-50, (Hazra))

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. Wilder whose telephone number is 571-272-2826. The examiner can normally be reached on 8 AM - 4PM Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jason Salce
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9/30/05

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